



Toxics Use Reduction Institute

Best Practices for Working Safely with Nanoparticles in University Research Laboratories

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Need for Best Practices Document

- Health and safety of NSEC lab personnel is of primary importance
- Significant nanoparticle exposures were measured in various CHN labs
- Poorly designed/operated engineering controls were documented
- Administrative procedures needed improvement



Need, Cont.

- NSEC labs must not adversely affect the environment
- Other research labs are looking for guidance
 - Lack of government regulation
 - Consistency of approach is desirable
- In response, "Interim Best Practices for Working with Nanoparticles" was written
- Currently in Final Draft



Document Outline

1. Introduction
2. Basic Premises
3. Occupational Hygiene Resources Available to CHN Researchers
4. Routine R&D Laboratory Operations
5. Management of Nanomaterials
6. Management of Nanomaterial Spills



2. Basic Premises

- Relatively little known about the toxicity of nanoparticles
- Enough known about engineered nanoparticles to cause concern
- The precautionary approach must be followed, i.e., limit exposure to nanoparticles until we know that certain exposures are acceptable